

CLAIMS

1. A method, comprising:

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associating at least one light source and at least one light sensor with at least one component of a data-processing system;

10 associating at least one other light source and at least one other light sensor with at least one other component of said data-processing system; and

communicating data between said at least one component and said at least one other component of said data-processing system by transmitting light from said at least one light source to said at least one other light sensor or from
15 said at least one other light source to said at least one sensor.

2. The method of claim 1 further comprising:

20 establishing at least one light path patch between said at least one component and said at least one other component of said data-processing system in order to communicate data by light among said at least one light source, said at least one sensor, said at least one other light source and said at least one other sensor.

25 3. The method of claim 1 further comprising:

configuring said at least one light source to comprise an LED; and

configuring said at least one other light source to comprise an LED.

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4. The method of claim 1 further comprising

configuring said at least one light source to comprise a VCSEL; and

5 configuring said at least one other light source to comprise a VCSEL.

5. The method of claim 1 further comprising:

10 providing at least one mirror to guide light emitted from said at least one light source to said at least one other light sensor or light emitted from said at least one other light source to said at least one light sensor.

6. The method of claim 1 further comprising:

15 establishing at least one light path patch between said at least one component and said at least one other component of said data-processing system in order to communicate data by light among said at least one light source, said at least one sensor, said at least one other light source and said at least one other sensor; and

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locating at least one mirror at an end of said at least one light path in order to guide light emitted from said at least one light source to said at least one other light sensor or light emitted from said at least one other light source to said at least one light sensor.

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7. The method of claim 1 further comprising:

aligning said at least one component directly opposite said at least one other component in order to form at least one direct light path between said at least one light source and said at least one other sensor and said at least one

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other light source and said at least one light sensor.

8. The method of claim 1 further comprising:

5 aligning said at least one component perpendicular to said at least one other component in order to form a perpendicular light path between said at least one light source and said at least one other sensor and said at least one other light source and said at least one light sensor, wherein said perpendicular light path is guided by at least one mirror.

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9. The method of claim 8 wherein said at least one mirror is located at 45 degree angle to said at least component and said at least one other component of said data-processing system.

15 10. The method of claim 1 wherein said light transmitted from said at least one light source to said at least one other light sensor and from said at least one other light source to said at least one sensor comprises IR light.

11. A system, comprising:

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at least one light source and at least one light sensor associated with at least one component of a data-processing system;

25 at least one other light source and at least one other light sensor associated with at least one other component of said data-processing system; and

30 wherein data is communicated between said at least one component and said at least one other component of said data-processing system by transmitting light from said at least one light source to said at least one other

light sensor or from said at least one other light source to said at least one sensor.

12. The system of claim 11 further comprising:

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at least one light path patch established between said at least one component and said at least one other component of said data-processing system in order to communicate data by light among said at least one light source, said at least one sensor, said at least one other light source and said at least one other sensor.

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13. The system of claim 11 wherein said at least one light source and said at least one other light source each comprise an LED.

14. The system of claim 11 wherein said at least one light source and said at least one other light source each comprise a VCSEL.

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15. The system of claim 1 further comprising:

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at least one mirror for guiding light emitted from said at least one light source to said at least one other light sensor or light emitted from said at least one other light source to said at least one light sensor.

16. A system, comprising:

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at least one light source and at least one light sensor associated with at least one component of a data-processing system;

at least one other light source and at least one other light sensor associated with at least one other component of said data-processing system,

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wherein data is communicated between said at least one component and said at least one other component of said data-processing system by transmitting light from said at least one light source to said at least one other light sensor or from said at least one other light source to said at least one sensor;

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at least one light path established between said at least one component and said at least one other component of said data-processing system in order to communicate data by light among said at least one light source, said at least one sensor, said at least one other light source and said at least one other sensor; and

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locating at least one mirror at an end of said at least one light path in order to guide light emitted from said at least one light source to said at least one other light sensor and light emitted from said at least one other light source to said at least one light sensor.

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17. The system of claim 16 further comprising:

at least one component located directly opposite said at least one other component in order to form a direct light path between said at least one light source and said at least one other sensor and said at least one other light source and said at least one light sensor.

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18. The system of claim 16 further comprising:

at least one component located perpendicular to said at least one other component in order to form a perpendicular light path between said at least one light source and said at least one other sensor and said at least one other light source and said at least one light sensor, wherein said perpendicular light path is guided by said at least one mirror.

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19. The system of claim 16 wherein said at least one light source and said at least one other light source each comprise an LED.
- 5 20. The system of claim 16 wherein said at least one light source and said at least one other light source each comprise a VCSEL.